## Naval Facilities Engineering Command

# Abstract of an Accident

93-3

ACCIDENT TYPE:

Electrocution

INJURY:

Fatality

TYPE OF WORK: EQUIPMENT:

High Voltage Line Maintenance 4160 Volt 3-Phased Power Riser

SAFETY EQUIPMENT:

Insulated Bucket Truck

### DESCRIPTION OF THE ACCIDENT:

An electrician, with over twenty years experience, ascended in a bucket truck to perform maintenance on a newly installed and energized high voltage riser terminator. The employee did not ground the truck, nor put on safety gloves, prior to beginning work operations. During maintenance, the terminator assemble came free from the cross bar bracket and struck the electrician in the shoulder causing electrical shock to his upper body and igniting his clothing.

#### **DIRECT CAUSE:**

The system involved was energized and the work performed by the electrician had not been inthorized, nor had notification been made to the switching control person to secure the stem. Employee ignored basic safety procedures and began work on an energized system.

#### CONTRIBUTING CAUSE:

- Failure to follow approved safety work plan, or notify the ROICC.

- Proper handling practices and clearance procedures were not maintained to remove risk of electrical shock.

- Safety equipment such as approved insulated rubber gloves, sleeves, mats, etc. were not utilized, and bucket truck had not been grounded.

#### LESSONS LEARNED:

Guidance provided in NAVFAC P-1060 should be utilized.

- High voltage system work should only be accomplished when properly authorized and the designated person maintaining switching control over the affected system is ready to monitor the work's progress.

NAVFACINST 5100.17 prohibits live line bare hand work except when authorized by the

activity Commanding Officer when a situation leaves no alternative.

 High voltage systems should be tested for voltage before work is commenced and proper grounding precautions must be used.

The contractor's approved safety plan is essential and must be followed at all times. Established safety practices must be followed without deviation.

- Properly insulated personal protective equipment must be used at all times.

Personnel at the scene of high voltage work must be qualified to operate all affected equipment and standing by to provide assistance during all phases of hands-on work.